

REMARKS/ARGUMENTS

In response to the Office Action dated August 27, 2004, claim 1 is amended, and claims 2 and 15-17 are cancelled. Claims 1 and 3-14 are now active in this application. No new matter has been added.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 AND § 103

I. Claims 1-4, 11, 12 and 15 are rejected under 35 U.S.C. § 102(e) as being anticipated by Nakao et al. (USPN 6,587,597).

The rejection is moot as to canceled claim 15.

To expedite prosecution, independent claim 1 is amended to recite:

A remote control camera system which is remote-controlled by a plurality of users, said remote control camera comprising:

- (a) an image pickup device capable of picking up a live image and outputting said live image to outside;
- (b) a changing element for changing a pickup direction of said image pickup device;
- (c) a composing element for forming composite image information by continuously composing a plurality of pieces of image information picked up by said image pickup device in different image pickup directions;
- (d) a memory for storing said composite image information;
- (e) an extraction element for forming extracted Image information derived from said composite image information in response to a request from outside;
- (f) an output device for outputting said extracted image information; and
- (g) a controlling element for repeating an operation of forming a composite image and storing said composite image by overwriting said memory at a given timing, wherein
in the case when there is a request from outside for changing said pickup direction while picking up and outputting said live image, said controlling element obtains said extracted image information derived from said composite image information and outputs said extracted image information in response to said request from outside without changing said pickup direction of said image pickup device.

In the present invention, a live camera capable of remote-controlling a pickup direction is utilized to form a composite image by continuously composing a plurality of frames picked up in different pickup directions, and the formed composite image is stored in a memory. The formation of the composite image and the storing processes are repeated at a given timing. If there is a request from a user *for altering the pickup direction while executing a live image pickup*, an image area of the composite image in the memory corresponding to the request for the alteration is extracted and transmitted to the user. In this manner, *it is not necessary to mechanically alter the pickup direction of the live camera, and* independent of the mechanical alteration, *only the electrical image processing of the composite image is carried out*, with the result that the user is allowed to feel as if he or she were actually operating the live camera. In other words, even if there are a plurality of users' requests to alter the pickup direction, one live camera can deal with these requests; therefore, it is possible to effectively utilize the live camera, and consequently to construct a remote control camera system at low costs.

Neither Nakao et al., nor any of the other applied prior art references, disclose or suggest the foregoing structure and advantageous effects of the present invention and more specifically, they do not disclose or suggest the remote control camera system now recited in amended independent claim 1. Furthermore, the present invention achieves advantageous effects based on having the structure now recited in amended independent claim 1. Consequently, amended independent claim 1, as well as dependent claims 2-4, 11 and 12 are patentable over Nakao et al. and their allowance is respectfully solicited.

II. Claims 5, 8, 9 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakao et al. in view of Whiting et al. (USPN 6,034,716).

The rejection is moot as to cancelled claim 16.

As claims 5, 8 and 9 depend directly or indirectly from amended independent claim 1, which is patentable over Nakao et al., claims 5, 8 and 9 is patentable over Nakao et al. also, even when considered in view of Whiting et al.

It is noted that the Examiner maintains that Nakao et al. uses two cameras, but does not disclose the use of their cameras for live image output. The Examiner contends that Whiting et al. discloses in column 3, lines 38-41 that the system is capable of live broadcast and thus asserts, it would have been obvious to one of ordinary skill in the art at the time of [the] invention to use the multiple cameras of Nakao et al. to pickup live video as in Whiting et al. for the benefit of allowing the user to watch live video feeds.

However, the Examiner is incorrect with respect to Whiting et al. disclosing in column 3, lines 38-41 that the system is capable of live broadcast. All images captured by camera 10 are recorded (in digital form) via a recording element of camera 10 and then transmitted to processor 12 through a cable 40. Processor 12 has a memory device for storing this digital information and processor 12 transmits data entered into and retrieved from the memory device to individual screens 14 and individual viewers can select the actual images, or viewing windows, to be displayed on each respective screen 14 from the data available from processor 12. Column 3, lines 38-41 actually describe:

Digitized data is retrieved at each display screen. If the user does not change conditions, then he or she will observe a ***moving record or essentially*** a live broadcast of a particular segment of the full viewing field of the camera. (Emphasis added)

The emphasized words clearly evince that Whiting et al. recognizes that what is being observed if the user does not change conditions is not an actual live broadcast, but a “moving

record" or "essentially a live broadcast". A live broadcast would be outputting the information from camera 10 directly to the individual screens without first entering the information into and then retrieving the information from the memory device of processor 12.

Thus, Whiting et al. does not disclose, in response to a request from outside, outputting live image information picked up by at least one camera among a plurality of cameras as *live images* (claim 8). Whiting et al. also does not disclose that in the case when there is not any request from outside for a predetermined period of time, the image pickup device is directed in the direction in which an extracted image lastly output was picked up, and a *live image* picked up by the image pickup device *are output* (claim 16). Therefore, claims 8 and 16 are patentable over Nakao et al. and Whiting et al., considered alone or in combination, as is claim 9, depending from claim 8.

III. Claims 6, 7 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakao et al. in view of May et al. (USPN 6,714,249) and Whiting et al.

The rejection is moot as to cancelled claim 17.

As claim 6 and 7 depend from amended independent claim 1, which is patentable over Nakao et al., claims 6 and 7 are patentable over Nakao et al., even when considered in view of May et al. and Whiting et al.

IV. Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakao et al. in view of Whiting et al., and further in view of Cheng et al. (USPN6,356,297).

As claim 10 depends from claim 8, which is patentable over Nakao et al. and Whiting et al., claim 10 is patentable over Nakao et al. Whiting et al. also, even when considered in view of Cheng et al.

V. Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakao et al. in view of Okino et al. (USPN 5,920,349).

As claim 13 depends from amended independent claim 1, which is patentable over Nakao et al., claim 13 is patentable over Nakao et al. also, even when considered in view of Okino et al.

VI. Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakao et al. in view of Okino et al., and further in view of Parulski et al. (USPN 5,563,6578).

As claim 14 depends via claim 13 from amended independent claim 1, which is patentable over Nakao et al., claim 14 is patentable over Nakao et al. also, even when considered in view of Okino et al. and Parulski et al.

CONCLUSION

Accordingly, it is urged that the application, as now amended, is in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

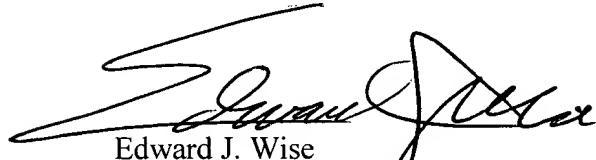
To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

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including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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